DOCUMENT RESUME

ED 190 628 TM 800 422

AUTHOR Rock, Samuel K., Jr.: Chagalis, George P.
TITLE ISD Designed Medical Specialist Training.
PUB DATE Apr 80
NOTE 67p.: Paper presented at the Annual Meeting of the American Educational Research Association (64th, Boston, MA, April 7-11, 1980).

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Allied Health Occupations Education: Competency Based Education: *Course Evaluation: *Course Objectives: Criterion Referenced Tests: Curriculum Development: Emergency Squad Personnel: First Aid: *Instructional Development: *Military Training: Performance Tests: Postsecondary Education: Practical Nursing: Task Analysis: Videotape Recordings
IDENTIFIERS Army: *Basic Medical Specialists: Instructional Systems Development

ABSTRACT

The Basic Medical Specialist course has one of the largest enrollments of the U.S. Army's Academy of Health Sciences: 11,000 soldiers were trained in this course in 1977 and 1978. Training encompasses both emergency first aid (for field medics) and basic nursing skills. A task force working to improve Army training developed this course, in accordance with the Interservice Procedures for Instructional Systems Development (ISD) model. The initial task analysis activity resulted in a separation of essential skills from those which were desirable but not necessary. The list of combat medic skills was longer than the list of nursing tasks. For each task that was a part of the course, instructors received administrative instructions, a lesson plan, a laboratory checklist, and standards for judging task performance. Each lesson was presented on videotape: students practiced the skills, generally using the buddy system, until mastery was achieved. Evaluation practices included a pretest and posttest for each module. Preliminary evaluation of this course indicated that participant attitudes were favorable, student attrition was very low, and costs were reduced, as compared to previous courses. (An extensive list of tasks, conditions for testing, and performance standards is appended). (GDC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED190628

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ISD Designed Medical Specialist Training

BEST COPY AVAILABLE

Samuel K. Rock, Jr.
Captain, Medical Service Corps
Educational Psychologist
Directorate of Training Development
Academy of Health Sciences, US Army

and

George P. Chagalis
Major, Medical Service Corps
Program Manager for the Medical Service Corps
Army Medical Department Personnel Support Agency
Office of The Surgeon General

APPROVED FOR PUBLICATION/PRESENTATION
ACADEMY OF HEALTH SCIENCES
UNITED STATES ARMY
FORT SAM HOUSTON, TEXAS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
S. Rock
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TM 800427

"The views of the authors are their own and do not purport to reflect the position of the Department of the Army or the Department of Defense."

Paper presented at the Annual Meeting of the American Educational Research Association, April, 1980, Boston, Massachusetts.

The Academy of Health Sciences, US Army, is the largest medical training facility in the free world. It has, as one of its major responsibilities, the training of all enlisted soldiers assigned to the Army Medical Department in the basic medical skills. Most enlisted medical specialties require the soldier to first pass the Basic Medical Specialist Course, and as a result this course is the largest taught at the Academy. Approximately 11,000 soldiers were trained in this course in 1977 and in 1978. The projected numbers for 1979 are similar to those for the past two years.

The density of the student population in the Basic Medical Specialist Course made it a prime candidate for revision when the Army Medical Department adopted the Interservice Procedures for Instructional Systems Development, or ISD, model (TRADOC Pamphlet 350-30, 1975). To implement the ISD model a Training Development Task Force was established in October, 1976, and in October, 1977 the first trial of the ISD designed Basic Medical Specialist Course was conducted. This course is a task based, performance oriented, criterion referenced, group paced program of instruction, the content of which requires four weeks to teach. Administrative and other constraints extend the actual time required to teach the course to six weeks.

The Training Problem

The Army Medical Department is responsible for providing health care to Army personnel, to include those on active duty, their dependents, and retired members of the military. Clearly, the medical

department must train sufficient support personnel to insure quality health care for a very large population. Professionally trained physicians, nurses, pharmacists, psychologists, biochemists, and so on are recruited already trained in their specialties. However, the need for personnel at the nurses aid or paraprofessional level cannot be adequately satisfied through recruitment of trained individuals. This recruitment problem is compounded by the mission of the medical department, which is to care for soldiers during armed conflict. This need is distinct from any civilian needs, and requires that training produce a "combat medic."

The patient's or casualty's first encounter with the medical department is typically with the Basic Medical Specialist, who is generally a young soldier trained in emergency first aid and some basic nursing skills. This Basic Medical Specialist is therefore in the largest enlisted medical specialty, and this specialty places the greatest training burden on the Academy of Health Sciences.

The general training goal at the Academy for the Basic Medical Specialist is to train the soldier to provide initial medical care in a combat setting. The training must emphasize skills that are necessary to provide immediate emergency medical aid to the soldier in the field. In addition, since the Basic Medical Specialist will spend part of his career in a hospital assignment, the Academy must minimally prepare the soldier to function safely in that environment.

Several questions confronted the training developers at the Academy

when they began work on the Basic Medical Specialist Course. A basic assumption was made: the quality of health care had to be maintained at the highest possible level. Given the assumption, the following questions had to be considered:

a. Which tasks are essential for the Basic Medical Specialist?

b. How can the Academy provide training in the essential tasks without exceeding the resources available?

c. How can the time needed to teach all the tasks be reduced to have the soldier on the job as quickly as possible?

The answers to these questions were provided in part by the ISD model approach, and in part by the unique requirements of the medical department and the Academy.

The ISD Basic Medical Specialist Course

The Training Development Task Force had to deal with the answers to the questions concurrently since they were given one year to develop the course and have it ready to use in the classroom. This was a less than optimum approach since any logical or systematic process (e.g., ISD model) requires an initial analysis of what is required in the training program, which then serves as the drivewheel for the whole development process. Without this initial analysis tasks are often included for training that are nice to know rather than essential for job performance. The group attempted to maintain its awareness of this potential pitfall in the development process, and the initial results indicated that it was successful.

The training development group took approximately nine months to design the course, in part because the first few months were spent teaching many of the members of the group the ISD model. The first complete course was finished in September, 1977, and a trial run of the course was conducted during October and November, 1977. Modifications, corrections, and revisions were made to the course after the trial, and again after a second and third trial in 1978.

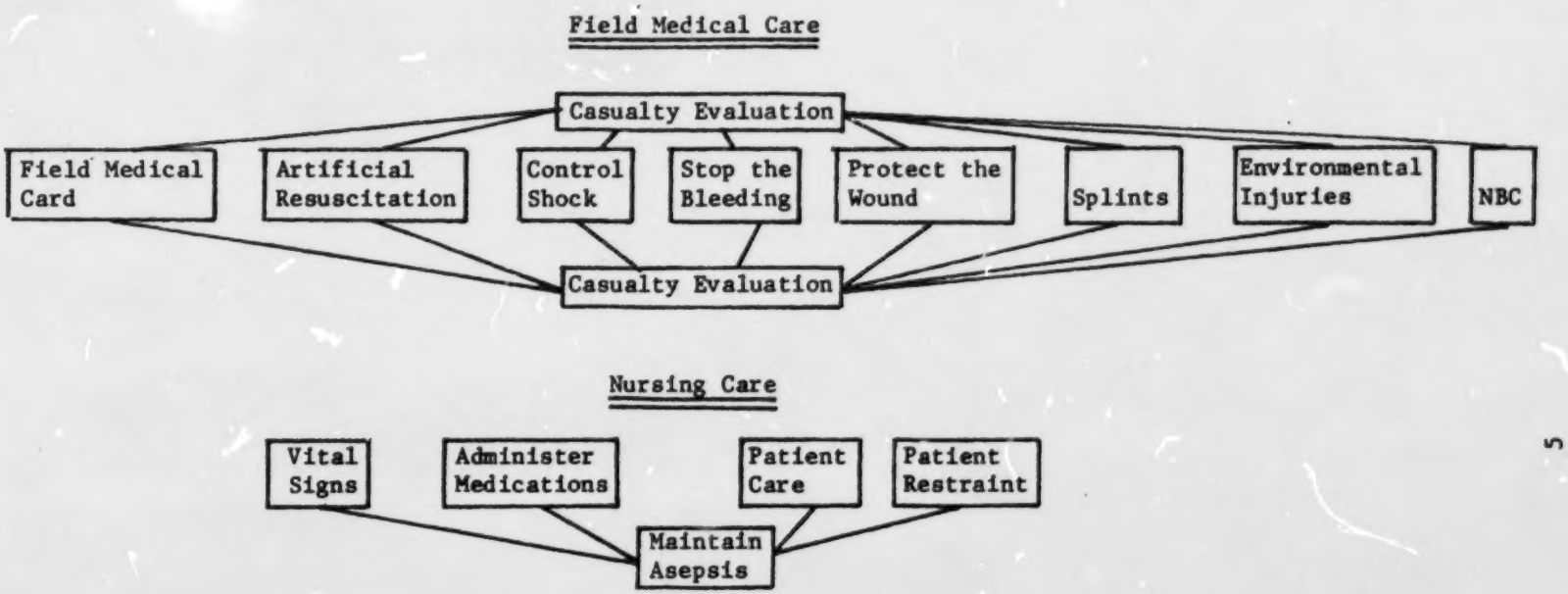
The final course was segmented into two major types of health care, and each of these segments was further broken down into training modules (similar skills were grouped together) from which individual lesson plans were produced (Figure 1). The two major segments are Field Medical Care and Nursing Care. The Field Medical Care tasks are required of a combat medic, while the Nursing Care tasks allow the individual to function in a hospital setting.

The modules are broken down to specific tasks (Appendix A). Some modules have only one task (e.g., Field Medical Card), while others are quite large (e.g., Splinting has 14 tasks). This variable number of tasks per module presented a problem with testing since the Academy elected to test performance of a whole module during each test period. This problem will be discussed in a later section.

The modules shown in Figure 1 contain the tasks determined essential for the Basic Medical Specialists. The Field Medical Care

Figure 1

MODULES OF THE 91B ISD COURSE



tasks are those minimally required by the combat medic to save lives and minimize trauma. The team had to include clearing the airway (Artificial Resusitation) and stopping the bleeding (Control Shock & Stop the Bleeding) since these categories are immediately life threatening to the injured. Protecting the wound, splinting, and environmental injuries are categories where the immediacy of the life threat is usually small, but the potential for limiting the trauma is great. The chemical injuries (NBC) module is unique to the Army in that it must be prepared to deal with casualties from chemical warfare (e.g., nerve agents). The Casualty Evaluation task is the basis for the treatment decision made by the medic. The Field Medical Card task is to maintain patient control in the combat setting. Many tasks were not included that are important in the field. These tasks were essentially those that required little formal instruction to master, or were performed so infrequently that their training could be delayed. An example of tasks not included is the category of litter carries, or how to transport the sick or wounded. It requires little time to instruct an individual in how to lift a litter or load a litter into a field ambulance. These tasks, and others, were not included to reduce the strain on available resources and also to get the trainee out of school and on the job as rapidly as possible.

The Nursing Care tasks are fewer than the Field Medical Care since the Academy's primary concern in this basic course was to produce a combat medic. There is a point of overlap between these two types of

care in the module on administering medications. The medic in the field will often have to administer medication by injection or other means, while accreditation standards often preclude this function in hospitals. Otherwise the Nursing Care skills are straightforward (e.g., taking temperatures, counting pulse and respirations, maintaining a sterile field or aseptic working condition, and so on).

An initial list of tasks was generated early in the ISD process, through surveys of soldiers working as medical specialists and of senior enlisted soldiers and officers. This list was constantly under revision during the first cycle through the process. The list has changed slightly since the trials of the course were run, and can be expected to continue to change as a normal part of the ISD process.

In an additional effort to reduce the resource requirements and get the medic to the job rapidly the tasks were designed to teach the essential material, while nice to know information was left to later training settings. To accomplish this, videotapes were used to present the material to the trainee. Each of the 65 tasks were presented in this mode. The average viewing times for each of the tapes was ten minutes. The length of the tapes was kept short to help maintain attention.

The emphasis was on how to perform the tasks, and the testing portion of the course served to reinforce this emphasis. The trainee was taught to perform his job at the initial entry level, and advancement to higher grades required that the trainee continue to study and learn while on the job. Initial entry level required the mastery of psychomotor skills, and the videotape format was selected to enhance learning in this domain.

Skills needed at higher grade levels were not taught for another reason -- the likelihood of retaining those skills for two or three years, until the individual is promoted and allowed to perform those skills, is small. The Academy could not afford to teach skills that would have to be retaught in the future.

The final product that the instructors received contained individual packages for each task to be taught. The individual task package was composed of administrative instructions, the training plan (similar to a lesson plan), a laboratory checklist, and a mechanism for evaluation (Appendix B). Each of the parts of the individual task package was designed to support the instructor in his role as a facilitator of learning. In addition, the prepared package insured standardization of training, which should result in an aidman who can perform the tasks identified in the ISD analysis for the appropriate skill level. In the past, courses were developed and presented by the instructor, who in many cases introduced personal preferences not necessarily germane to the desired subject. The administrative instructions included a description of the length of the training for the task, the method of instruction, necessary student equipment and materials, media support for the task, references, method of testing, lesson tie-in with the rest of the course, and a recommended class size. From this information the instructor obtained an overall picture of the structure of the task to be taught. Specific details of the task were provided in the training plan for that task.

The training plan provided all the information the instructor needed

to conduct a training class on a specific task. In conjunction with the administrative instructions the training plan provided a complete description of the training package. There were four parts to the training plan: discussion, demonstration, practical exercise, and summary. (1) The discussion included objectives for the instructor, an introduction for the student, objectives for the student and a basic explanation of the content. (2) The demonstration section informed the instructor of an audio-visual presentation or a demonstration, allowed time for questions from the students, allowed time for an elaboration of the points in the demonstration. (3) The practical exercise was the time allotted to allow the student to practice the procedure (task), under the guidance of the instructor, until mastery was attained. For the most part, students practiced on each other using the "buddy system". To assist the student in the psychomotor domain a laboratory checklist was included. The checklist was used as a teaching tool and as a study aid when reviewing for a test (or on the job). (4) The summary was the final segment of the training plan. The instructor used the summary to reinforce the main points of the procedure. He also answered any questions from the students.

The evaluation portion of the package included a pretest and post-test for each module. There were three components that could make up the test; (1) the performance component tested an individual's ability to perform specific tasks under conditions which duplicate (as nearly as possible)

the actual working conditions; (2) the written performance component measured tasks by means of test items, accompanied by either still photographs or illustrations; (3) the written component measured the individual's knowledge of facts and figures needed to perform the tasks.

The performance testing posed some practical problems, particularly since each module was tested as a whole unit. Performance testing is time consuming, and the actual amounts of time required may easily be underestimated. One task may require only two or three minutes to test, while an apparently similar task may require double or triple the time. The modular testing is also difficult since an individual may have little difficulty performing one task, but when given 12 or 14 tasks in one test period the memory load is massive. This was particularly true under mastery type performance testing as used at the Academy. The individual must get every step correct and in correct sequence or not pass the test. Individuals could not pass the course unless or until they passed every test on every task.

Observations and Results

Three trials of the course were conducted at the Academy. The first was composed of 36 trainees selected from an incoming class of approximately 500 trainees. The second trial had 120 trainees selected from another incoming class. The selection in the first two trials was designed to obtain groups that were comparable on a variety of factors (e.g., sex, ASVAB score, education level). The third trial had 42 trainees, who were selected by the teaching division at the Academy

responsible for the course.

In the first group the instructor to trainee ratio was 1/9, in the second group the ratio was 1/10, and the third group ratio was 1/14. These different ratios provided the opportunity to estimate the influence, if any, of different class sizes on performance outcomes. Three additional trials were conducted with US Army Reserve units, and ratios were varied in these trials also.

Unlike most educational programs the trainees spent maximum time in the classroom (in training), about seven hours per day. While there were demands on the time of each class for administrative and other non-academic duties, generally the instructors and trainees spent the day in training. In addition, the new course demanded evening and occasional weekend study sessions and review periods, which extended some training days to 10 to 12 hours. As a result of the intensive amount of time spent in training there was an opportunity to examine the effects of this intensity on learning and retention.

The attrition rate for each trial is given in Table 1. The attrition rate for the traditional course has been approximately 2.5 percent (2.6 percent in FY 78). The attrition rate for the ISD course was a distinct improvement over that of the traditional course. Although these results are preliminary, there is little reason to suspect they will change radically as additional data are collected. When a student passed it was because he has demonstrated to his instructors that he could do the task. It was not possible to pass based on paper and pencil performance alone, rather the individual had to physically do the task.

TABLE 1

ATTRITION RATES FOR ISD TRIALS

Location	No. of Students	No. of Attritions	Attrition Rate
Academy of Health Sciences			
Trial 1	36	0	0
Trial 2	120	1	0.008
Trial 3	42	1	0.024
Sub-Total	198	2	0.010
US Army Reserve Units			
Trial 1	60	0	0
Trial 2	84	4	0.048
Trial 3	112	0	0
Sub-Total	256	4	0.014
Total	477	6	0.013

Videotape use was of major concern in the design of the course and resulted in a variety of advantages and disadvantages. The advantages were:

a. Standardization - The material remains the same regardless of location of presentation.

b. Reliability - The material is presented exactly the same way over time.

c. Self-paced - Materials are available as needed.

d. Stop-action - Any point can be emphasized.

e. Exportable - self-explanatory.

f. Familiarity - TV-oriented society.

g. Attention getting - Well made tapes can attract and maintain individuals attention.

The disadvantages were:

a. Dehumanizing - Both for the instructor and student. Too mechanical.

b. Non-interactive - self-explanatory and related to above.

c. Hardware malfunctions - self-explanatory.

d. Expense - Tape production facilities and time.

e. Updating content - Must remake whole tape.

The consensus of the training developers and trainers was that the advantages of the videotapes outweighed the disadvantages. In addition, well made videotapes can be used to develop Training Extension Courses (TEC)

instead of depending on a separate contract. This alternative is being explored at the Academy at present.

An interesting observation during the trials was the apparent positive attitude of both the instructors and trainees toward the course. The initial reaction of the instructors assigned to the course was somewhere between neutrality and outright hostility, possibly because the course was new and they had not participated in its design. In an effort to assess attitudes a short questionnaire was developed for use with later trials in some US Army Reserve units. Results from the questionnaire were quite positive, as illustrated in Table 2. All the questions were answered in a positive fashion by most of the students. The instructors were asked to fill out an after-action report describing their reactions and recommendations for the course. Their responses paralleled those of the students, and when the few complaints were examined they were found to be primarily administrative rather than content problems.

A final observation concerns cost comparisons between the pre-ISD course and the ISD designed course. At the time of writing the Academy has not had one full year where all trainees have gone through the ISD course. Due to needs of reserve units and administrative difficulties some trainees had to be trained in the old format course during 1979. However, since most of the trainees did go through the ISD designed course the cost figures have been prorated for a full year and are

TABLE 2

Results of the Trainee Attitude Questionnaire [1]

Question	Scale Response 1	2	3	4	5 [2]
1. Instructors showed concern for learning	200	55	0	1	0
2. Physical condition of classroom	53	110	15	54	24
3. TV presentations easy to follow	153	89	7	6	1
4. Like TV presentations	143	99	8	6	0
5. How much learned compared to other courses	157	76	17	4	2
6. Could perform tasks without harming anyone	116	122	14	0	4
7. Rate the practical exercises	182	57	11	4	2
8. Supplies and equipment adequate for exercise	115	116	18	5	2
9. Free to ask questions of instructors	197	50	4	3	2
10. Instructors were very knowledgable	173	71	2	5	5
11. Individual attention received	115	95	36	3	7
12. Were tests fair	155	75	14	5	7
13. Were the instructors patient	210	35	5	1	5
14. Instructors were enthusiastic about course	198	49	3	0	6
15. Overall opinion of the course	193	48	10	3	2
16. Recommend the course to someone else	225	16	7	4	4

Notes:
1. Total number of respondents = 256
2. Attitude scale: 1= most favorable, 5 = least favorable

presented in Table 3. All three major indicators, total direct costs, total student costs, and total cost per graduate, are less under the ISD designed course than with the pre-ISD course. At the same time the number of trainees graduated is higher under the ISD designed course, and the length of the course is less than the pre-ISD course. It is reasonable to conclude that the ISD designed course has, and will continue to, reduce costs to the Academy.

Summary and Conclusions

The Academy of Health Sciences developed a Basic Medical Specialist Course using the Instructional Systems Development (ISD) process. The course is task based, performance oriented, criterion referenced, group paced instruction in basic emergency first-aid and elementary nursing care. Lecture presentations were minimal since performance oriented practical exercises were developed to effect most of the training. Each lesson was presented in a videotape format initially, with a practical exercise following the tape. All testing was mastery (with a criterion of actual job performance) rather than norm referenced. Trainees had to pass all the tests to graduate from the course.

Three trials were conducted at the Academy (additional trials were conducted with reserve units). Attrition rates for all trials of the course were low, and comparison with the traditionally taught course indicated that the attrition rate was lower by at least half in the ISD course. Significant cost reductions were observed.

Table 3

Cost Comparisons of Pre-ISD Course
With
ISD Basic Medical Specialist Course*

	Pre-ISD	ISD
Direct Costs:		
Pay & Allowances:		
Instructors	$ 274	$ 280
Admin Personnel	392	376
Instructor Travel	2	1
Supplies & Materials	73	87
Clothing & equipment	112	61
Total Direct Costs	$ 853	$ 805
Student Costs:		
Pay & Allowances	1,131	900
Travel Costs	338	199
Total Student Costs	$1,469	$1,099
Total Cost per Graduate	$2,322	$1.904
No. of Graduates	8,789	10,076
Course Length (weeks)	7.8	6

*Costs have been prorated since there was not one full year of ISD for comparison.

In addition, the attitudes of the instructors, and the students were very positive. Those instructors in a position to make comparisons between the traditional and ISD course were favorably impressed with trainee performance at the end of the ISD course. While attrition was reduced, instructor contact hours were increased, with a savings of man hours. The overall result was a smaller instructor to trainee ratio than was financially acceptable in the past.

While the Academy of Health Sciences is continuing to develop and test the ISD process for its training programs, the initial results have been very encouraging. As more students are trained in the new course there will be an opportunity to effect some comparisons between newly trained medics and those trained in the traditional program.

APPENDIX A

BASIC MEDICAL SPECIALIST (91B10) TASKS

-Survey a Casualty
-Perform Two-Minute Handwash for Medical Asepsis
-Put on and Remove Sterile Gloves
-Change a Sterile Dressing
-Decontaminate Mercury Thermometers
-Measure and Record a Patient's Temperature with a Glass Oral Thermometer
-Measure and Record a Patient's Temperature with a Glass Rectal Thermometer
-Count and Record a Radial Pulse
-Count and Record Respirations
-Measure and Record a Patient's Blood Pressure
-Complete a Clinical Record - TPR Graphic (SF 511)
-Assemble Needle and Syringe
-Draw Medication Into a Syringe
-Administer Intramuscular Injection
-Administer Subcutaneous Injection
-Administer Intradermal Injection
-Initiate Intravenous Infusion
-Irrigate an Eye
-Instill Eye Drops
-Make an Occupied Bed
-Give a Bed Bath
-Restrain a Patient Using Mechanical Devices
-Initiate Field Medical Card
-Open the Airway
-Perform Mouth-to-Mouth Resuscitation
-Insert Oral Pharyngeal Airway
-Apply Mouth-to-"S" Tube Resuscitation
-Administer Manual Ventilation with Ambu Bag
-Apply Mask-to-Mouth Resuscitation to Chemical Casualty
-Perform Cardiopulmonary Resuscitation
-Apply a Pressure Dressing
-Apply a Tourniquet
-Initiate Treatment for Traumatic Amputation
-Apply a Dressing to a Wound of the Head
-Apply a Dressing to a Wound of the Face
-Apply a Dressing to an Eye Injury
-Treat a Casualty with a Chest Wound
-Treat a Casualty with an Open Abdominal Wound
-Initiate Treatment for a Protruding Wound
-Administer Initial Treatment for Severe Burns
-Apply Elastic Bandage to Forearm
-Apply Elastic Bandage to Hand
-Apply Cravat Bandage to Hand
-Apply Elastic Bandage to Foot
-Apply Arm Sling #1
-Apply Arm Sling #2
-Immobilize Suspected Fractured Arm with Pneumatic Splint
-Immobilize Suspected Fractured Forearm
-Immobilize a Suspected Multiple Fracture of the Arm
-Immobilize a Suspected Fractured or Dislocated Elbow
-Immobilize a Suspected Fractured Collarbone
-Immobilize a Suspected Fractured Ankle with a Wireladder Splint
-Immobilize a Suspected Fractured Leg with a Pneumatic Splint
-Immobilize a Suspected Fractured Leg with an Improvised Splint
-Immobilize a Suspected Fractured Leg with a Thomas Leg Splint
-Immobilize a Suspected Fractured Neck
-Immobilize for Transportation a Suspected Fractured Spine
-Treat and Immobilize an Open Fracture
-Identify Signs and Treat for Shock
-Treat a Casualty for Heat Cramps
-Treat a Casualty for Heat Exhaustion
-Treat a Casualty for Heat Stroke
-Treat a Casualty for Frostbite
-Disinfect Water for Drinking
-Triage Casualties/Patients
-Provide Emergency Care for Nerve Agent Casualty
-Administer Emergency Care for Blister Agent Casualty

APPENDIX B

Task List, Individual Training Analysis Worksheet, and Lesson Plan

MOS 91B10 TASK LIST

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
831-0001	Survey a Casualty	Given a casualty with indicated wounds and/or injuries.	Trainee will find all life-threatening and non-life threatening injuries.
835-0019	Perform Handwash for Medical Asepsis	Given an available water source, soap (liquid or bar) detergent, paper towels, available clock.	Hand washing must be complete in two minutes, and hands are in aseptic condition.
835-0018	Put On and Remove Sterile Gloves	Given a doctor's order or situation requiring aseptic technique, sterile gloves, wash pack or soap, water and towel.	The technique used in putting on and removing sterile gloves must be to maintain complete sterility.
835-0011	Change a Sterile Dressing	Given a physician's order, a patient with a dressed wound, a dressing set (disposable forceps, 4 x 4 dressing), wash packs (or germicidal solution plus 2 x 2 gauze pads), adhesive tape, a disposable glove pack, a container for contaminated waste, a discard basin and bedside table.	After washing hands and assembling necessary equipment, dressing is removed and discarded. New sterile dressing is applied using aseptic technique. Contaminated waste is discarded properly.
835-0004	Decontaminate Mercury Thermometers (In conjunction with Task No. 835-0002, 835-0003, 835-0005 and 835-0043.)	Given oral or rectal mercury thermometers, green soap, wescodyne, water, paper towels, cotton, two thermometer holders, one covered basin, one large tray, one small tray, and 2" x 2" gauze.	Mercury thermometers must be completely decontaminated.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
835-0002	Measure and Record a Patient's Temperature With A Glass Oral Thermometer. (In conjunction with Task No. 835-0003, 835-0004, 835-0005 and 835-0043.)	Given a patient, oral glass thermometer, available light source, and a requirement to take temperature.	Reading taken must be correct within plus (+) or minus (-) 0.2 of a degree Fahrenheit (F) when taken by an evaluator.
835-0003	Measure and Record a Patient's Temperature With a Glass Rectal Thermometer (In conjunction with Task No. 835-0005 and 835-0043.)	Given a patient, a glass rectal thermometer, K-Y jelly or mineral oil, tongue depressor, 2" x 2" gauze, two thermometer holders (one "clean" and one "used" for rectal), an available clock, a pencil and a pad.	Reading must be correct within plus (+) or minus (-) 0.2 of a degree Fahrenheit (F) when checked by an evaluator.
831-0043	Count and Record the Radial Pulse (In conjunction with Task No. 835-0002, 835-0003, 835-0004 and 835-0005.)	Given a patient, an available clock with a second hand, and a requirement to take a radial pulse.	Reading must be correct within plus (+) or minus (-) four counts per minute with successive counting.
835-0005	Count and Record Respirations (In conjunction with Task No. 835-0002, 835-0003, 835-0004 and 835-0043.)	Given a patient, a doctor's order, an available clock with a second hand, pad and pencil.	Patient's respirations must be counted accurately.
835-0001	Measure and Record a Patient's Blood Pressure	Given a patient, sphygmomanometer, stethoscope, pencil and pad.	Reading must be correct with plus (+) or minus (-) 6mm of mercury when verified against subsequent reading taken by evaluator.
866-0003	Complete a Clincal Record - TPR	Given temperature, pulse, respiration, and blood pressure readings, and other personal data of the patient, a blank SF 511 and a pen of permanent black or blue-black ink.	Transcribes all required information and graph temperature, pulse, and blood pressure with 100% accuracy.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
835-0009	Assemble a Needle and Syringe (In conjunction with Task No. 835-0010 and 835-0014.)	Given a doctor's order, a syringe, needle, towelette or surgical soap and a tray.	Parts assembled properly, needle examined for defects, and plunger checked for freedom of movement.
835-0010	Draw Medication Into a Syringe (In conjunction with Task No. 835-0009 and 835-0014.)	Given a physician's order (Medication Card), syringe, needle, ampule or multidose vial, and alcohol sponge.	Utilizing aseptic technique, the medication should be drawn with no air contained in syringe and the prescribed amount of medication plus 0.2 cc.
835-0014	Administer an Intramuscular Injection (In conjunction with Task No. 835-0009 and 835-0010.)	Given a doctor's order, a patient, a 2.5 cc to 5.0 cc sterile syringe, 20 to 21 gauge needle, an alcohol sponge, medication, wash pack, (or soap, water, and towel), and patient's chart (or medical record).	Using a prescribed site, correct equipment and prescribed dosage of medication, the injection must be administered without error.
835-0015	Administer Subcutaneous Injection	Given a doctor's order, patient, 2.5 cc syringe, 23-25 gauge needle, medication, alcohol sponge, and wash pack or soap.	Equipment assembled, medication properly drawn into syringe, site prepared, injection given and needle disposed of properly; medication recorded.
835-0016	Administer an Intradermal Injection	Given a doctor's order, patient, tuberculin syringe (1 ml), 26 gauge needle, medication, alcohol sponge, wash pack or soap and water, sterile sponges, and non-alcoholic germicide.	Using a prescribed site, correct equipment and prescribed dosage of medication, the injection must be administered without error.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
835-0008	Initiate Intravenous Infusion	Given a seriously wounded casualty, in need of blood or volume expanders.	Equipment is assembled avoiding contamination of sterile parts. Site is selected and cleaned, I.V. needle inserted properly, and needle and tubing secured without error.
835-0012	Irrigate and Eye (In conjunction with Task No. 835-0013).	Given a doctor's order, patient, cotton balls, eye pads, rubber bulb syringe, prescribed sterile solution, container, basin, towel and germicidal soap or towelette.	The eye will be completely cleaned, according to procedure, utilizing prescribed sterile solution.
835-0013	Instill Eye Drops (In conjunction with Task No. 835-0012).	Given a doctor's order, a patient, an eyedropper, prescribed medication, and cotton balls.	The medication will be instilled without contaminating eyedropper or touching the cornea.
835-0006	Make an Occupied Bed (In conjunction with Task No. 835-0007).	Given a hospital bed with a patient and two sheets, a pillowcase, a blanket, towel, wash cloth.	Patient must not be injured or subjected to undue discomfort; bed will have smooth sheets and mitered corners.
835-0007	Give a Bed Bath (In conjunction with Task No. 835-0006).	Given a patient who is confined to a bed and needs a bath.	All areas of the body cleaned and dried; patient dressed.
835-0017	Restrain a Patient Using Mechanical Devices.	Given a patient in a medical treatment facility, a doctor's order, patient's bed sheets, hand mitt materials, 24" x 8" pads, gauze, cravats, and wrist or ankle ties.	The patient will be restrained without totally restricting movement, impeding circulation or respiration.
866-0001	Initiate US Field Medical Card.	Given a casualty, pen or pencil, and DD Form 1380.	The ten critical items of the US Field Medical Card must be completed without error.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
831-0002	Open the Airway.	Given a patient with an indication of a blocked airway.	Using the appropriate method, the patient's airway will be opened without error.
831-0003	Perform Mouth-to-Mouth Artificial Resuscitation.	Given a live, unconscious casualty who is not breathing and who does not have a broken back or neck or a facial injury, and any environment setting not contaminated.	Determination that no contradicting conditions are present, casualty properly positioned and prepared for resuscitation, resuscitation initiated using proper procedures, and determination made as to when resuscitation should be stopped.
831-0004	Insert an Oral Pharyngeal Airway.	Given an unconscious, nonbreathing simulated casualty and four sizes of oral pharyngeal airways.	The correct size airway is properly inserted and casualty's breathing is restored.
831-0034	Apply Mouth-to-S-Tube Resuscitation	Given an unconscious, nonbreathing casualty and an S-Tube oral pharyngeal airway.	Airway opened, tube inserted properly, and breathing restored.
831-0033	Administer Manual Ventilation with Bag Valve-Mask Resuscitator (ambu-bag).	Given an unconscious casualty who is unable to continue spontaneous respiration, bag-valve, mask resuscitator and pharynegeal airway in place.	Bag-valve mask resuscitator is assembled, checked and positioned over casualty's mouth and nose in the correct manner. Ventilation is established at the rate of one ventilation every 3-5 seconds and maintained until termination is indicated or at least 45 minutes.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
831-0010	Apply Mask-to-Mask Resuscitation to a Chemical Agent Casualty.	Given a simulated unconscious, non-breathing casualty on his back, two M17A1 Field Protective Masks, and an M1 Resuscitation Tube in a simulated chemical-agent environment.	The trainee will administer air to the casualty at the rate of 12 to 20 breaths per minute for at least 5 minutes.
831-0032	Perform Cardiopulmonary Resuscitation (CPR).	Given a casualty with an indicated condition of no breathing and no pulse.	Pulse is checked after two minutes. Using the procedures outlined on the Laboratory Performance Checklist.
831-0007	Apply a Pressure Dressing.	Given a casualty, Field First Aid Dressing, cravat, and padding material.	The Field First Air Dressing package must be opened without contaminating the wound side of the dressing and must be applied over the wound and securing by tying tails at outside edge of dressing. To increase pressure, padding is placed on top of dressing and secured with cravat or second dressing.
831-0036	Apply a Tourniquet.	Given a casualty with heavy hemorrhaging from an extremity. Before the tourniquet is applied, the decision to do so is made with realization that distal portion of extremity is being sacrificed to save the casualty's life.	Flow of blood is stopped as soon as possible to save the casualty's life.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
831-0050	Initiate Treatment for a Traumatic Amputation.	Given a casualty with a complete or partial amputation.	A tourniquet is applied to stop the bleeding. A complete and partial amputation stump should be covered with a pressure dressing. An incomplete amputation should be splinted. The splint should be applied so that the tourniquet can be easily adjusted. Treat for shock and evacuate.
831-0037	Apply Dressing to a Head Wound.	Given a patient with a wound of the head, sterile dressing and cravat bandage.	The dressing is exposed without contaminating its sterile surfaces, is properly positioned on the wound and is protected by a bandage, and bleeding controlled.
831-0038	Apply a Dressing to a Wound of the Face.	Given a casualty with face wound, a sterile field dressing, and a 3" cravat bandage.	Properly apply dressing and secure it with bandage.
831-0039	Apply a Dressing to an Eye Injury.	Given a casualty with an indicated eye injury, eye pads, padding material, and a field dressing.	Casualty's eye is covered with an eye pad and a dressing is properly applied to cover the injured eye. If casualty has object imbedded in the eye, the eye will be padded around the object and a dressing properly applied over both eyes.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
831-0053	Treat Casualty With a Chest Wound.	Given a casualty with a simulated sucking chest wound, scissors, dressing, and bandage; (knife, sheet of plastic, metal foil).	The chest wound must be exposed, sealed, and dressed, and the patient positioned properly without error.
831-0048	Treat an Open Abdominal Wound.	Given a patient, four dressings, three cravat bandages, and scissors	The wound will be protected from further damage.
831-0051	Initiate Treatment for a Protruding Object Wound.	Given a casualty with a wound resulting from a protruding foreign object, dressing and bandages.	Control bleeding from the entrance wound by direct pressure using dressings around object. Support and stabilize foreign object. Apply pressure dressing and take steps to control pain and prevent shock.
831-0008	Administer Initial Treatment for Severe Burns.	Given a casualty, scissors, large and small dry sterile dressings, field package of sodium chloride or sodium bicarbonate, canteen, and cool water.	The wound is treated without causing further contamination.
831-0027	Apply an Elastic Bandage to a Forearm.	Given a patient with an injured arm 3-inch elastic bandage, scissors, and tape.	The elastic bandage must be applied to the injured arm to prevent further injury to the arm. The bandage is applied so as not to restrict circulation.

TASK NUMBER	TASK TITLE	CONDITION	STANDARDS
831-0028	Apply an Elastic Bandage to a Hand.	Given a patient with a hand injury, two 2" elastic bandages, scissors, adhesive tape, and Laboratory Performance Checklist.	Injured hand must be supported and immobilized. The bandage must be firmly wrapped, but not so tight as to cut off circulation, as evidences by discoloration of the nailbeds.
831-0030	Apply Cravat Bandage to the Hand (In conjunction with 831-0027, 0028, 0029).	Given a casualty wounded in the hand, a dressing, a triangular bandage, U.S. Field Medical Card (DD Form 1380), and pencil.	The bandage remains in place upon movement of the bandaged hand. Good circulation is maintained, as indicated by normal color of nailbeds.
831-0029	Apply an Elastic Bandage to a Foot.	Given a patient with a foot injury, an elastic bandage, metal clips or scissors and tape.	The bandage must be applied so as to immobilize the foot, support any necessary dressing, and not impede the natural flow of blood.
831-0021	Apply Arm Sling #1.	Given a patient who requires immobilization of an upper extremity for any reason, two cravat bandages, and a safety pin.	Upper extremity is immobilized utilizing the stated equipment. Arm wrist and hand are properly positioned and supported.
831-0019	Apply Arm Sling #2..	Given a casualty with a suspected fracture of the shoulder and two triangular (cravat) bandages.	Arm must be properly immobilized with one cravat applied as Arm Sling #2 and the second cravat applied as a swathe. The sling must not reduce the circulation or cause casualty pain.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
831-0074	Immobilize a Suspected Fracture of the Arm Using a Pneumatic Splint.	Given a casualty with a suspected fractured arm in a field environment, during daylight hours or darkness, and on any type of terrain.	Pulse in arm checked, splint checked, and placed on casualty's arm in proper manner, then inflated and sealed.
831-0015	Immobilize a Suspected Fractured Forearm.	In a field environment, given a patient with a suspected fracture of the forearm, a basswood splint, five cravats and padding.	Arm must be protected from further injury by immobilizing the joints above and below the suspected fracture without impairing circulation.
831-0017	Immobilize a Suspected Multiple Fracture of Arm.	Given a casualty with suspected multiple fracture of the arm, wireladder splints and eight cravat bandages.	Limb is immobilized above and below fracture sites. Cravats are secured on the sides of the splint and not on top of fracture site. Cravats must not restrict circulation of blood to the casualty.
831-0026	Immobilize a Suspected Fractured or Dislocated Elbow.	Given a casualty with a suspected fractured or dislocated elbow, either a basswood splint or a wireladder splint and three cravats.	Trainee must immobilize fracture or dislocation above and below the injury site in less than fifteen minutes. Cravats securing the splint must not deter blood circulation.
831-0018	Immobilize a Suspected Fractured Collarbone (Clavicle).	Given a casualty with a suspected collarbone fracture occurring in a field environment, one 4" elastic bandage, padding material, and cravat bandages.	Bandage must be applied to immobilize collarbone and prevent additional injury.

TASK NUMBER	TASK TITLE	CONDITION	STANDARDS
831-0024	Immobilize a Suspected Fractured Ankle with a Wireladder Splint.	Given a casualty with a fractured ankle, two wireladder splints, three cravat bandages, and padding.	Ankle immobilized and secured properly.
831-0025	Immobilize a Suspected Fracture of the Leg with a Pneumatic Splint.	Given a casualty with a suspected fracture of the leg and a pneumatic splint.	Immobilize the extremity, protecting against additional injury.
831-0023	Immobilize a Suspected Fractured Leg with an Improvised Splint.	In a field environment, given a casualty with a suspected fractured leg, appropriate splinting materials, padding, 8-10 cravats, scissors.	Immobilize leg fracture by using proper padding, splinting materials, and ties, firmly securing the splint to the injured leg.
831-0022	Immobilize a Suspected Fracture of the Leg with a Thomas Leg Splint.	Given a casualty with suspected leg fracture, 2 assistants, Thomas leg splint with supporting equipment, seven cravat bandages.	Splint properly adjusted, traction initiated and maintained, splint applied and supported properly.
831-0052	Immobilize a Casualty With a Suspected Fractured Neck (In conjunction with Task No. 831-0020,)	Given a casualty with a suspected fractured neck, an untrained assistant, two 30-inch wireladder splints, padding, four elastic bandages, tape and six cravats.	The trainee must immobilize the casualty's suspected fractured neck with a wireladder splint. The casualty's pulse must be present after application of the cravats.
831-0020	Immobilize for Transportation a Suspected Fracture of the Spine (In conjunction with Task No. 831-0052.)	Given a patient with a suspected spinal fracture, one litter, two blankets (three in cold weather), three litter staps, one cravat, and three assistants.	The casualty's wrists will be properly secured. Casualty is placed on litter without bending spinal column.

TASK NUMBER	TASK TITLE	CONDITION	STANDARDS
831-0026	Treat and immobilize an open fracture.	Trainee must be able to complete the task on any type of terrain, under extreme weather conditions, and during daylight or darkness, when given the necessary equipment.	Trainee must be able to apply pressure dressing over the fractured area, avoiding the bone, to reduce bleeding. Fractured area is then padded and splints applied with cravats. Padding, splints and cravats are applied with 100% accuracy.
831-0006	Identify Signs and Treat for Shock.	Given a conscious or unconscious casualty, blanket, poncho, blood expanders or electrolytes, and an intravenous set.	The signs of shock are identified and the casualty is treated for shock according to the required procedure.
831-0047	Treat a Casualty for Heat Cramps.	Given a casualty with an indication of heat cramps.	Determine that casualty has heat cramps and take appropriate action.
831-0045	Treat a Casualty for Heat Exhaustion.	Given a casualty with an indication of heat exhaustion.	Determine if casualty has heat exhaustion and take appropriate action.
831-0046	Treat a Casualty for Heatstroke.	Given a casualty with indications of heatstroke.	Determine if casualty has heatstroke and take appropriate action.
831-0042	Treat a Casualty for Frostbite.	Given a casualty with an indication of frostbite injury.	Correctly determine the degree of injury and administer appropriate treatment.

TASK NUMBER	TASK TITLE	CONDITION	STANDARD
831-0001	Disinfect Water for Drinking.	Given chlorination kit, iodine tablets, canteen with cup and cap, 36-gallon water bag, and clean stirring instrument.	36-gallon water purification bag properly disinfected with calcium hypochlorite and checked for residual. Canteen properly disinfected and waiting time observed.
831-0054	Triage casualties/patients.	Given several casualties with various types of wounds of differing complexity and an aid bag with various dressings, materials, etc.	The trainee must group casualties according to condition; Group I, II, III, and IV with 100% accuracy.

INDIVIDUAL TRAINING ANALYSIS WORKSHEET

TASK	MOS	SKILL LEVEL	TASK NUMBER	MODULE
IMMOBILIZE A SUSPECTED FRACTURED ANKLE WITH A WIRE LADDER SPLINT	91B	1	831-0024	SPLINTS

TRAINING CONDITIONS

USING A SIMULATED CASUALTY WITH A SUSPECTED FRACTURED ANKLE

JOB CONDITIONS

IN A FIELD ENVIRONMENT USING A CASUALTY WITH A SUSPECTED FRACTURED ANKLE

METHODS OF INSTRUCTION

- ☐ Lecture
- ☒ Demonstration
- ☐ Practical Exercise
- ☐ Audio/Visual

TRAINING CATEGORY

- ☒ I Formal
- ☐ II FOJT
- ☐ III IOJT
- ☐ IV JPA

RECOMMEND T.E.C.

- ☒ Yes
- ☐ No

MINIMUM ACCEPTABLE TRAINING STANDARDS

ANKLE IS IMMOBILIZED AND PROPERLY SECURED

JOB STANDARDS

ANKLE IS IMMOBILIZED AND PROPERLY SECURED

MATERIALS, TOOLS, EQUIPMENT

2 WIRE LADDER SPLINTS
4 CRAVATS FOR PADDING ONLY
3 CRAVATS FOR SECURING SPLINT
1 BANDAGE SCISSORS

MANNER OF TESTING

- ☒ Performance
- ☐ Written

Written

- ☐ Performance

CUES TO PERFORMANCE

GIVEN A CASUALTY WHO IS COMPLAINING OF PAIN OR TENDERNESS OF THE ANKLE, MAY EXPERIENCE A LACK OF MOVEMENT SWELLING AND DEFORMITY MAY BE PRESENT.

WRITTEN SPECIFICATIONS

- ☐ Process
- ☒ Product
- ☐ Both

TESTING CONSTRAINTS

- ☒ Time 15 MIN. TO APPLY SPLINT
- ☐ Manpower
- ☐ Facil/Equip SEE MATERIALS, TOOLS, EQUIPMENT, PADDED SPLINTS CAN BE USED TO SAVE TIME AND EQUIPMENT
- ☐ Ethical
- ☐ Legal
- ☐ Safety
- ☐ Other

STEPS OF PERFORMANCE 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

PREREQUISITE TASKS SURVEY THE CASUALTY
ARTIFICAL RESUSCITATION MODULE
STOP THE BLEEDING MODULE

LEARNING CATEGORIES INVOLVED

- ☐ Cognitive
- ☐ Affective
- ☒ Psycho-motor

DATE 28 JAN 77
TASK ANALYST SGM LOPEZ
SME CONSULTANT(S) SFC OGAN
SME REVIEWER(S) COL MATHIAS COL JUEL

50

51

ANS Form 468A(Rev), 19 April 1978

6 STEPS IN PERFORMANCE	7 STANDARDS OF PERFORMANCE/ INDICATIONS OF CORRECT ACTION	8 1. RULES/DEFINITIONS 2. PRECAUTIONS/CONTINGENCIES	9 REMARKS, REFERENCES
1. SURVEY THE CASUALTY	TRAINEE DETERMINES THE EXTENT OF THE INJURY SEE TASK 831-0001		SME
2. REASSURE CASUALTY	TRAINEE BRIEFLY EXPLAINS PROCEDURE AND ATTEMPTS TO RELAX THE CASUALTY	(2) CASUALTY MAY BE EXPERIENCING CONSIDERABLE PAIN	SME
3. CUT OR LOOSEN CASUALTY'S BOOT LACES	BOOT LACES ARE CUT TO ALLOW FOR SWELLING OF ANKLE		SME
4. REMOVE EQUIPMENT FROM AID BAG	TRAINEE OBTAINS TWO SPLINTS PADDING MATERIAL AND THREE CRAVATS		SME
5. BEND PRONGS AT ENDS OF SPLINTS	PRONGS ARE BENT AWAY FROM BODY		SME
6. PAD SPLINTS	PADDING MATERIAL SHOULD OVERLAP AND COMPLETELY COVER BOTH SPLINTS	(2) ANY SOFT MATERIAL CAN BE USED (2) ANKLE SHOULD BE SPLINTED EVEN IF MATERIAL IS NOT AVAILABLE	SME
7. MEASURE THE LENGTH OF THE SPLINT AND MARK THE SPOT	SPLINT IS MEASURED AGAINST UNINJURED BOOT AND SHOULD EXTEND ABOVE THE TOE OF THE BOOT.		SME

6 PERFORMANCE	7 INDICATIONS OF CORRECT ACTION	8 PRECAUTIONS/CONTINGENCIES	9 REMARKS, REFERE
8. BEND THE MEASURED SPLINT AT 90° ANGLE	SPLINT SHOULD NOW LOOK LIKE AN "L"		SME
9. SLIDE THE SECOND PADDED SPLINT UNDER BOTTOM PART OF THE "L"	THE UNIT SHOULD RESEMBLE A CROSS		SME
10. BEND THE SECOND SPLINT TO FORM A "U"	TRAINEE PLACES HIS BOOT AT THE CROSS AND PULLS UP BOTH SIDES		SME
11. JOIN THE "L" AND "U" SPLINTS	"U" SHAPED SPLINT IS ON THE OUTSIDE OF "L" AND A CRADLE IS FORMED		SME
12. POSITION CRAVATS	ONE CRAVAT IS PLACED NEAR THE SOLE OF THE BOOT, ONE NEAR THE HEEL AND ONE NEAR THE TOP OF THE BOOT		SME
13. LIFT CASUALTY'S INJURED LEG	TRAINEE ASSISTS CASUALTY TO RAISE LEG AND SUPPORT IT WITH HIS HAND	(2) DO NOT TWIST OR UNNECESSARILY MOVE THE ANKLE	SME
14. PLACE SPLINT UNDER INJURED LEG AND SLIDE ANKLE INTO SPLINT	ANKLE SHOULD REST COMFORTABLY INSIDE SPLINT		SME

6 PERFORMANCE	7 INDICATIONS OF CORRECT ACTION	8 12. PRECAUTIONS/CONTINGENCIES	9 REMARKS, REFERE
15. TIE FIRST CRAVAT JUST ABOVE ANKLE	KNOT SHOULD BE TIED ON SPLINT SQUAREKNOTS SHOULD BE USED		SME
16. TIE SECOND CRAVAT	CRAVAT SHOULD WRAP AROUND SPLINT, UNDER THE SOLE OF THE BOOT CROSSED OVER ARCH AND TIED BEHIND LEG OVER HEEL		SME
17. TIE THIRD CRAVAT AROUND LEG AT TOP OF "U" SPLINT	THE "U" SHAPED SPLINT SHOULD BE SECURED AND THE SQUAREKNOT SHOULD BE ON THE SPLINT	(1) TAILS OF CRAVATS SHOULD BE TUCKED IN TO AVOID LOOSE ENDS	SME

TASK NO. 831-0024

IMMOBILIZE A SUSPECTED FRACTURED ANKLE WITH A WIRE LADDER SPLINT

POSITION CRAVATS AND PLACE SPLINT UNDER INJURED LEG/ANKLE

CONDITIONS: GIVEN PADDED AND BENT WIRELADDER SPLINTS CRAVATS AND A CASUALTY WITH A FRACTURED ANKLE

STANDARDS: WITHOUT TWISTING OR OTHER INDICATION THAT APPLICATION CAUSED PAIN

PAD BEND AND JOIN TWO WIRELADDER SPLINTS

CONDITIONS: GIVEN PADDING TWO WIRELADDER SPLINTS

STANDARDS: SPLINTS PADDED, BENT AT PROPER ANGLES AND JOINED CORRECTLY.

TIE CRAVATS

CONDITIONS: GIVEN THREE CRAVATS PADDED BENT WIRELADDER SPLINTS AND A CASUALTY

STANDARD: TIED WITHOUT OBSTRUCTING CIRCULATION AND NOT TIED OVER INJURED AREA

TRAINING PLAN

Task No. 831-0024

ADMINISTRATIVE INSTRUCTIONS

TRAINING MODULE: Lower Extremities

TASK: Immobilize a Suspected Fractured Ankle with a Wireladder Splint

COURSE: Basic Medical Specialist Course (91B10)

LENGTH: 45 Minutes

METHOD OF INSTRUCTION: Demonstration and Practical Exercise

STUDENT EQUIPMENT AND MATERIALS: Casualty with a simulated fractured ankle, two wireladder splints, three cravat bandages, and padding.

MEDIA SUPPORT: Audio-Visual Tape VT #1105, "Wireladder Splints: Injured Ankle," (7 Min.) Task No. 831-0024.

REFERENCES: Emergency Care and Transportation of the Sick & Injured (AAOS), 1976, pp. 143-46 and Subject Matter Expert, Academy of Health Sciences, Ft. Sam Houston, TX.

TESTING:

A. PRETEST: (For Self-Paced Instruction and Reserve Components only) See Appendix A. Those trainees who pass the pretest may be assigned as instructor assistants, to render aid to other trainees during the practical exercise. To be forwarded under separate cover.

B. LABORATORY CHECKLIST: See Appendix B - For use during demonstration and practical exercises.

C. TEST ITEMS: See Appendix C - To be forwarded under separate cover.

LESSON TIE-IN: As is done in other suspected fractures of the lower extremities, the adage, "Splint them where they lie" is appropriate and should be done in a situation involving a fracture or suspected fracture of the ankle.

RECOMMENDED TRAINEE GROUP SIZE: During the practical exercise, trainees should be separated into groups of two, to practice applying a wireladder splint to immobilize an ankle.

Task No. 831-0024

TRAINING PLAN

I. DISCUSSION (5 Minutes):

A. OBJECTIVES:

1. Terminal Objective:

TASK: The trainee will be able to immobilize a suspected fractured ankle using a wireladder splint.

CONDITION: Given a casualty with a fractured ankle, two wireladder splints, three cravat bandages, and padding.

STANDARD: Ankle immobilized and secured properly.

2. Intermediate Objectives:

a. TASK: The trainee will be able to pad, bend and join two wireladder splints.

CONDITION: Given padding, two wireladder splints and joined correctly.

STANDARD: Splints padded, bent at proper angles and joined correctly.

b. TASK: The trainee will be able to position cravats and place splint under casualty's injured leg and ankle.

CONDITION: Given padded and bent wireladder splints, cravats and casualty with fractured ankle.

STANDARD: Without twisting or other indication that application caused pain.

c. TASK: Tie cravats.

CONDITION: Given three cravats, padded, bent wireladder splints, and a casualty.

STANDARD: Tied without obstructing circulation and not tied over injured area.

B. INTRODUCTION (3 Minutes):

Ankle injuries can be very painful and disabling to soldiers and require special care by you, the Medical Specialist. Symptoms of ankle injuries include swelling, tenderness, and pain. In addition, a conscious casualty can tell you that his ankle is injured. In these instances, you should apply a splint so that the casualty can be transported to an area where thorough treatment can be administered.

C. OBJECTIVES (Paraphrase for trainees):

At the conclusion of this session, you will be able to apply a wireladder splint to a fracture of the ankle in a field environment using two wireladder splints, three cravats and adequate padding. The result should be an immobilized ankle.

D. EXPLANATION:

1. Purpose of Audio-Visual Presentation:

The tape you will be viewing shows how to make the casualty as comfortable as possible, how to pad and bend the wireladder splint and how to fit and secure the splint on the injured foot and ankle. The sequence of steps you are to follow is listed in Appendix B. After reviewing the tape, each of you will be provided an opportunity to practice this task.

NOTE: Distribute a copy of Laboratory Performance Checklist to each trainee (See Appendix B). Ask questions to insure each trainee understands terminology utilized on the checklist.

2. Important Points During Audio-visual Presentation:

Inform trainees to watch carefully the following points:

a. How the wireladder splints are padded and bent in a cradle "L" and "U" shape.

b. How the specialist lifts the leg in order to slip the splint under the injured foot.

c. Where the three cravats are prepositioned.

d. How the cravats are used to secure the splint to the foot.

II. DEMONSTRATION (10 Minutes):

NOTE: Show videotape VT #1105.

A. Questions from Trainees.

B. Elaboration of points made in video tape:

The audio-visual program indicated that before padding the splint you should bend the metal ends so that the open end cravats, insure that the cravats are not tightened to the degree that circulation is obstructed.

III. PRACTICE EXERCISE (25 Minutes):

A. Instructor assigns trainees into pairs to practice applying a wireladder splint on the ankle of each other. Assistant instructors should check results to insure that circulation of blood is not restricted and that cravats are not on the fractured area.

B. The Laboratory Performance Checklist is to be utilized by the trainees as a guide during this aspect of training. The instructor and assistants should be readily available to assist and guide the students.

C. Allow sufficient time for each trainee to complete the application of wireladder splint on each other and to check the result.

IV. SUMMARY (5 Min.):

A. Review of Main Points:

1. Bending of wireladders.

2. Forming 'L' and 'U' shaped wireladder splint.

3. Placing splints and securing with cravats.

B. Closing: You now have the training necessary to apply a wireladder splint on a fractured ankle. The adage, "splint them where they live" reflects an appropriate action which prevents further damage and enables the casualty to be transferred to a facility that has the capability to provide thorough care of a fractured ankle.

APPENDIX B

IMMOBILIZE A SUSPECTED FRACTURED ANKLE WITH WIRELADDER SPLINT

LABORATORY PERFORMANCE CHECKLIST

OBJECTIVE:

Be able to apply a wireladder splint to a fracture of the ankle using two wireladders, three cravats, padding and a casualty. The foot and lower leg should be immobilized with no restriction of circulation.

STEPS IN IMMOBILIZING A SUSPECTED FRACTURED ANKLE:

1. Assemble the equipment - two wireladder splints, three cravats and padding.

2. Reassure the casualty. (See Task #831-0001).

3. Cut or loosen boot laces to provide more room in boot for swelling injured ankle.

4. Pad both wireladder splints. Use a roller bandage, a cravat or other soft material to pad the splints. To conserve supplies, socks or T-shirt may be used. Wrap the material around the side of the wireladder allowing for a slight overlap as you work from one end to another.

5. Bend the pronged metal ends of the wireladder. These ends should be bent away from the body as the wireladder splint is applied. This measure prevents further injury to the patient.

6. Measure the length of the uninjured foot from toe to heel and mark on the first wireladder.

7. Bend the first splint at a 90 degree angle with the short end the length of the measured foot. The long end extends above the boot level when applied. This splint forms an 'L' shape.

8. Make a cross by slipping the second wireladder under the bottom part of the 'L' of the first wireladder.

9. Place your foot on the lower part of the 'L' wireladder splint and bend the second wireladder splint up toward you so that a 'U' is formed.

10. Join the 'L' and 'U' wireladder splints by fitting the U-shaped splint around the L-shaped one. This forms a cradle and protective case for the patient's ankle.

11. Position the three cravat bandages. Lay them where you can reach them. Place the first one near the sole of the boot; one near the heel, and one near the top of the boot below the fracture site.

12. Lift the casualty's injured leg gently. Use either hand or ask patient to raise the injured leg, if possible. Do not twist the leg.

13. Place splint under injured leg and slide ankle inside splint. Use gentle pressure. Ankle should rest comfortably inside splint.

14. Tie immediately above and below the fracture side with square knots tied over the splint. Tie the first cravat just above the injured ankle and secure with knots over the splint.

15. Start the next cravat under the sole of boot, wrapped around the splint, crossed over the arch or boot laces and tied on the splint behind leg above the heel.

16. Apply the third cravat around leg and splint at the top of the 'U' splint; tie ends on the side and tuck in the ends of the cravat.

Task No. 831-0024

CHECKLIST FOR PRACTICAL EXERCISE

	YES	NO
1. Did the trainee properly position the casualty to apply splint to the ankle?	____	____
2. Did the trainee properly measure the length of the patient's foot and bend the wireladder splint to proper specification?	____	____
3. Did the trainee bend and assemble both wireladder splints in proper relationship to each other for immobilizing a fractured ankle?	____	____

REFERENCES

Department of the Army. Interservice Procedures for Instructional Systems Development (TRADOC Pamphlet 350-30). Ft Monroe, VA: United States Army Training & Doctrine Command, August, 1975.